SANTINT 三华

G360
Automatic Gyro Mixer
User's Manual

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1. General overview

G360 Automatic Gyroscopic Mixer is designed for paint mixing with the following main features:

- Ergonomic design and viewing door to facilitate observation of mixing process.
- Viewing door with electronic lock to protect the mixer from starting up while the door is open and to prevent the door from being opened in the process of operation.
- Tri-directional sliding door structure operated from the top, easy and comfortable to operate, saving more outer space
- Retractable loading plate for easy loading and unloading of paint cans.
- LCD control panel serves to display each step of operation or any possible issues. Convenient for operation.
- Integrated multifunctional buttons, simple to operate.
- Integrated control board can adjust speeds using multi-segment intelligent frequency conversion system.
- The mixer can automatically detect the height of paint can and select mixing speed accordingly.
- An electromagnetic brake mechanism provides protection to both operators and paint cans.
- A well-closed structure enables the mixer to work under more hazardous surroundings.
- The mixer is equipped with castors for easy transportation.

2. Technical features and parameters

Number	Items	Equipment models	
		G360	
1	Power supply	220V ±5% 50Hz single phase alternative current	
2	Motor power	0.75kw	
3	Power of frequency converters	0.75kw	
4	Motion guide rail for lower tray	Round guide rail with diameter 20	
5	Mixing speed	Medium speed 150 r/min high speed 200r/min	
6	Opening and closing height of pressing plate	80mm～420 mm	
7	Mixing ranges	1L～20 L cans	
8	Applied cans	Maximum swing diameter 50~360mm Height 90~400mm	

9	Mixing time setting	Minimum time：30 sec Maximum time：900 sec Interval time：30 sec	
10	Shape size （W×D×H）	780×860×1050 mm	
11	Equipment weight	225kg	
12	Equipment noise	<70dB(A)	

3. Precautions

3.1 Power supply: voltage 220V±5%, electric current: 15A, working environment temperature: 0℃～55℃, relative humidity: 15%～90%.

3.2 Read the manual carefully before installation and usage. Never allow young people near the mixer.

3.3 Before using the mixer, confirm the outlet has a ground.

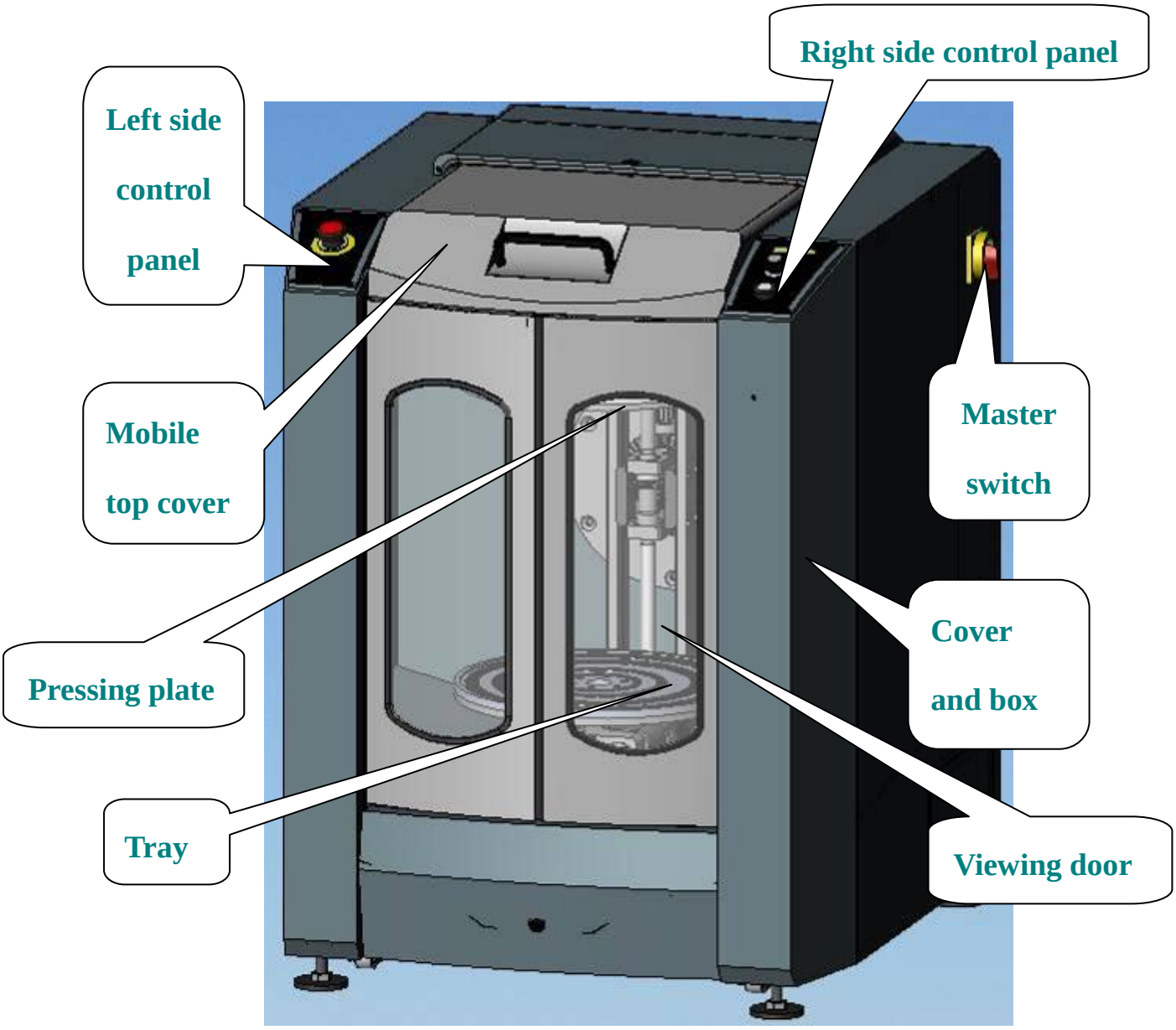
3.4 Before carrying out any repairs or maintenance, remember to disconnect the mixer from the power source. It is prohibited to perform repairs or maintenance before disconnecting the mixer or while the mixer is in operation.

3.5 Do not use an improper extension cable. Please disconnect the mixer when not used for an extended period of time.

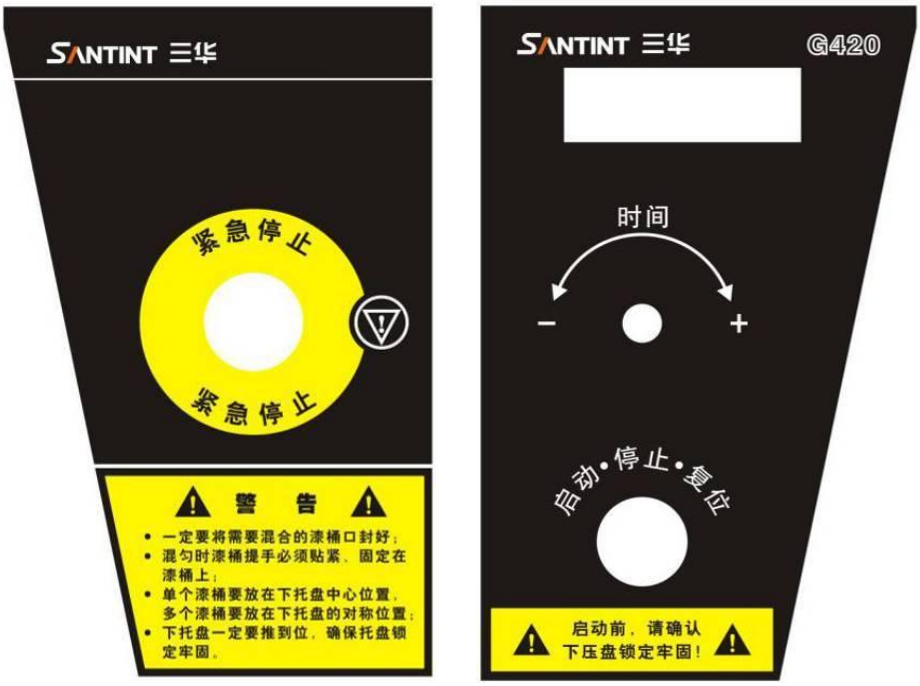
3.6 Adjust the four feet to level and secure the mixer to the ground. Do not let the castors touch the ground so to avoid vibrations.

3.7 Do not work in a flammable and explosive environment.

4. Equipment introduction



5. Control panels (下图为中文，且型号为 G420)



The graphic representations above are of the G420 control panel. The G360 control panels are as same as G420 control panels except for the model listing.

6. Equipment installation

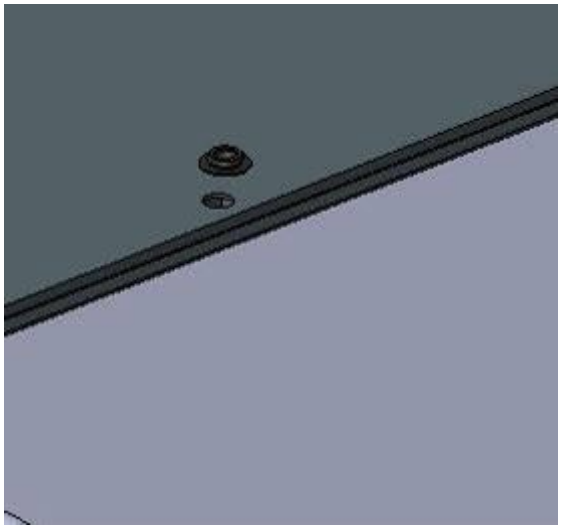
The operation procedures are as follows:

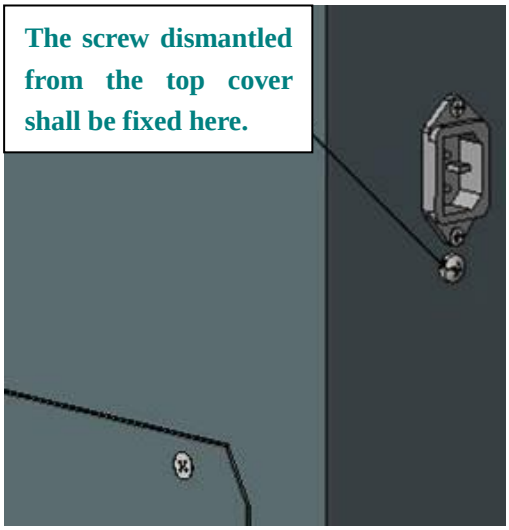
1. Open the packing box and dismantle the four feet platens. Move the mixer to level ground and to final operating location.

2. Using the feet level and stabilize the mixer until the castors are no longer touching the ground.

3. Open the rubber snap-on cover on the top, remove the screw under the snap-on cover and reinstall the snap-on cover (once the screw is removed, the door can open). Fix the screw (to save for future use) onto the right upper corner of the right-side panel. Refer to the following figure.

(Caution: when packing and transporting for a second time, refasten the screw so to lock and prevent door damage due to shock during transportation.)





7. Instructions to control panel buttons

Time

[-] [+] ● Minimum program set mix time is 30 sec. Maximum mix time is 900 sec. Minimum adjusting time interval is 30 sec.

● Time knob can be rotated clockwise and counterclockwise.

● Time knob rotates clockwise, time increases. When time increases to maximum 900 sec, if continued to rotate clockwise, time will start to re-increase progressively from 30 sec.

● Time knob rotates counterclockwise, time decreases. When time decreases to minimum 30 sec, if continued to rotate counterclockwise, time will begin to re-decrease progressively from 900 sec.

● Mixer-opening default mixing time is 180 sec.

● After adjusting the mixing time, the default mixing time woill be the same as the previous mixing time.

Start·Stop·Reset

- When the mixer it at rest, the LCD will display Ready, press the Start/Stop/Reset button to begin operation.
- While the mixer is in operation, press the Start/Stop/Reset button to stop operation.
- When the emergency stop button is pressed the mixer will immediately stop operation. Once the emergency stop button is released, press the Start/Stop/Reset button, and the mixer will reset and the mixing assembly will reset itself to its normal position.

- When the equipment stops mixing or resets, the pressing plate will be open to its maximum position.
- The button is multi-functional, each function is independent, thus there is no interventions between functions. Easy and reliable to operate.

Emergency stop

- When encountering any abnormities, press the emergency stop button at once to stop the mixer. The LCD will display "Emergency Button Pressed".
- To restart the mixer, rotate the button clockwise to release it. Then press "Stop/Reset" button so that the mixer can reset to its normal operating position.

8. Mixing ranges and speed selections

Can specifications	High speed 200r/min	Medium speed 150r/min	Remarks		
1 litre	√		Minimum height 90mm		
5 litre	√				
20 litre		√	Maximum weight	G360	
				36kg	

9. Mixer test and operations

9.1 Connect the power and turn on the power switch. The LCD displays "Wait A Moment Please" and moments later displays "Ready". The mixer is now ready for use. If the emergency stop switch is not released, LCD will display "Emergency Stop Switch Pressed". Releasing the emergency stop button by turning it clockwise. If the mixer position is correct, the LCD will display "Ready". If the mixer position is incorrect, the LCD will display "Please Press The Reset Button To Reset".

9.2 Ensure the paint can is well sealed and the handle is well fastened so to prevent rattling and damage to the can.

9.3 Open the viewing door, push the lock handle upwards on the bottom plate and pull out the bottom plate. Place paint can on the bottom plate taking into account can size and quantity. Make sure that the center of gravity of the can must be as center as possible of the bottom plate. Push back the bottom plate until it locks into place.

Close the viewing door. If the door is not completely closed, the LCD will display "Door Open" when the start button is pressed.

9.4 Set the mixing time: the initial mixing time is 180 seconds, turn the time knob to adjust it until the desired value. When the mixing finished, the last time entered will be the default time.

9.5 Mixing speed: the mixing speed is set automatically by the program according to the can height. If the can height exceeds 200 mm, the mixing speed is set to medium. If the can height is less than or equal to 220 mm, the mixing speed is set to high.

9.6 The clamping plate clamps automatically and the mixer starts to mix. The LCD will display "Mixing" and the remaining time. You may press the stop button to stop the mixer during its operation.

9.7 In the process of mixing, pay attention to the working condition of the machine. The mixer will stop automatically displaying "Wait Please" on LCD when the time set is reached. Shortly after the LCD will display "Mixing Finished" and the clamping plate will release automatically. In case there is any abnormal noises, press the Emergency Stop button to stop the machine.

9.8 Open the viewing door, pull out the tray, take out the mixed can.

9.9 Repeat the above steps 2-9.

10. Warnings and notices

10.1 Make sure the paint can is well sealed and the handle is well fastened and secured to prevent rattling and damage to the can.

10.2 In case there is any abnormal noises, press the Emergency Stop button to stop the machine. Find and solve the problem before restarting the machine.

10.3 The can should have certain intensity and have no serious deformations.

10.4 The bottom plate must be secured in the lock position. Always confirm it is locked in place before starting the mixer. Serious damage or injury may occur if not properly locked in place.

10.5 In the process of mixing, if the speed is too low or there is any abnormity, press Emergency Stop button immediately. Otherwise this may damage the motor or the frequency converter.

10.6 If the door is difficult to open, pull the door forward gently and use a screwdriver to move the door. If the inner assembly is not positioned correctly, close the door and press the reset button to open the door.

10.7 Only qualified personnel are allowed to disassemble and test the mixer.

10.8 Place (a) paint can(s) on the bottom plate so that they are (it is) centered/symmetrical as well as can be.

11. Mixer maintenance

Before carrying out any maintenance, make sure that the mixer has been unplugged from the power socket. Only qualified personel may disassemble the mixer.

11.1 Keep the interior of the mixer clean and wipe paint of on the side screws and the guide shafts with a wet cloth.

11.2 Lubricate the side screws and guide shafts every three months.

11.3 Lubricate the cone-gear transmission system every six months.

11.4 Open the back cover to check belt tension every year.

12.Common troubles and solutions

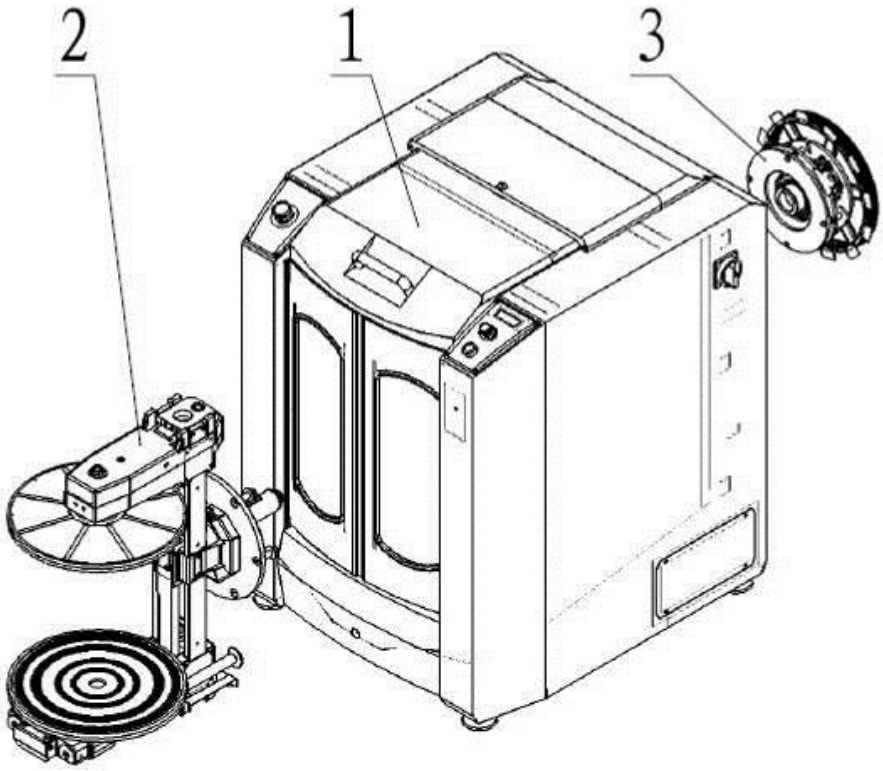
Troubles	Causes	Solutions
No message on LCD.	1. No power.	Check if the main switch is switched on or if main power chord is properly connected.
	2. Fuse or power chord is not connected.	2. Replace the fuse or power line.
LCD displays "System Trouble".	1. Motor is defective. 2. Power supply module of electromagnetic clutch is defective. 3. AC contactor is defective. 4. Interface board is defective. 5. Belt is loose. 6. Electromagnetic clutch is defective. 7. Frequency converter is defective. 8. Optocoupler for testing the off-position is defective.	1. Replace it. 2. Replace it. 3. Replace it. 4. Replace it. 5. Tighten it. 6. Replace it. 7. Replace it. 8. Replace it.

Pressing system issues.	1. Motor has issues. 2. AC contactor has issues. 3. Interface board has issues. 4. Ribbed belt is loose. 5. Frequency converter has issues. 6. Optocoupler for testing the pressing has issues.	1. Replace it. 2. Replace AC contactor. 3. Replace interface board. 4. Tighten it. 5. Replace frequency converter. 6. Replace it.
Frequency converter protection.	1. Frequency converter protection appears. 2. Connection line for testing the frequency converter issue is off.	1. Turn off the power and restart the mixer three minutes later. 2. Reconnect the line.
Emergency stop switch pressed.	1. Emergency stop switch is pressed.	1. Release it.
	2. Emergency stop switch is defective or connection line breaks off.	2. Replace emergency stop switch or reconnect the connection line.
Door not closed.	1. Door is not closed properly.	1. Close the door properly.
	2.Winding displacement plug is loose or connection line breaks off.	2. Insert the plug well or replace the connection line.
	3. Microswitch is not making contact.	3. Check and adjust microswitch.
Loud noise and extreme vibrations occur during mixing.	1. Mixer is not properly leveled and stable.	1. Adjust the feet of the mixer so it is level and stable.
	2. Can is not placed centrically or symmetrically.	2. Readjust the can's position.
	3. Equipment overloaded.	3. Reduce the load.

Contact your agent for any other issues!

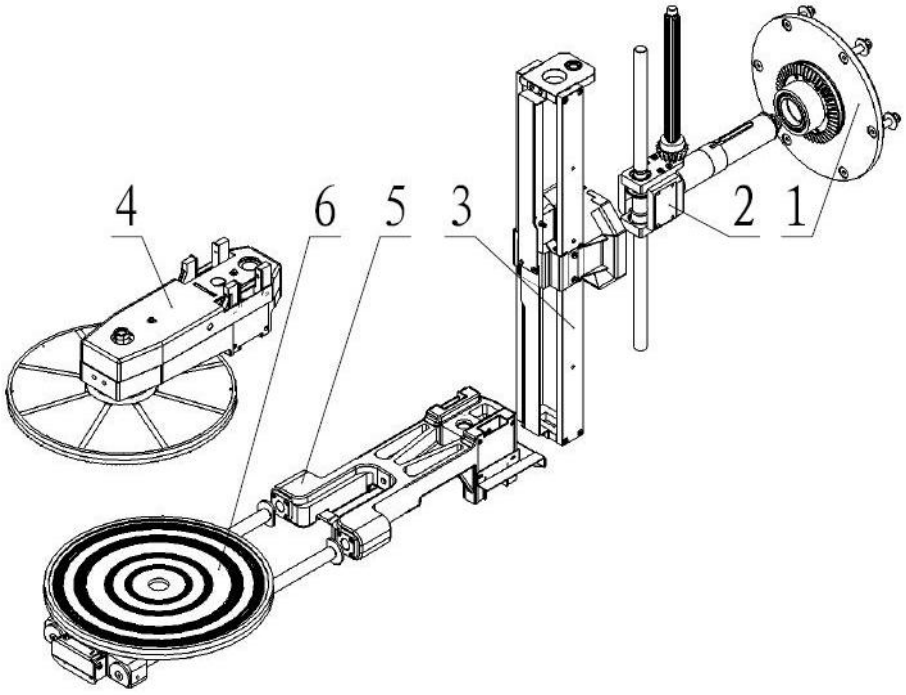
13.Exploded views

13.1 General assembly of G360 mixer



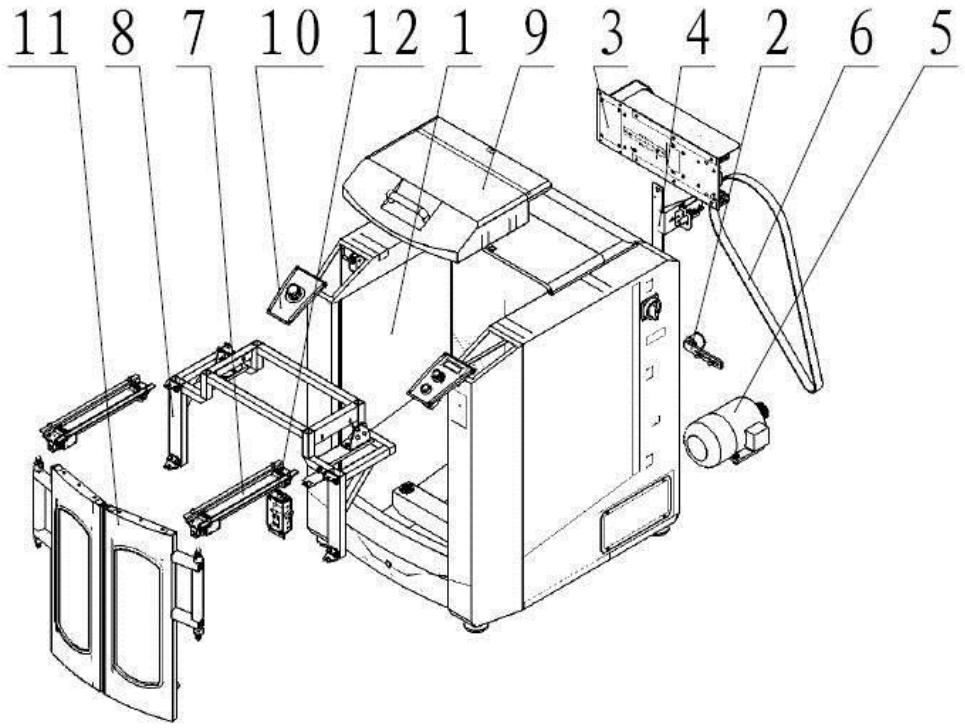
Number	Code	Name	Quantity
1	G360.02	G360 outer components	1
2	G360.01	G360 inner components	1
3	G5B.14	Electromagnetic clutch components	1

13.2 Inner components of G360 mixer



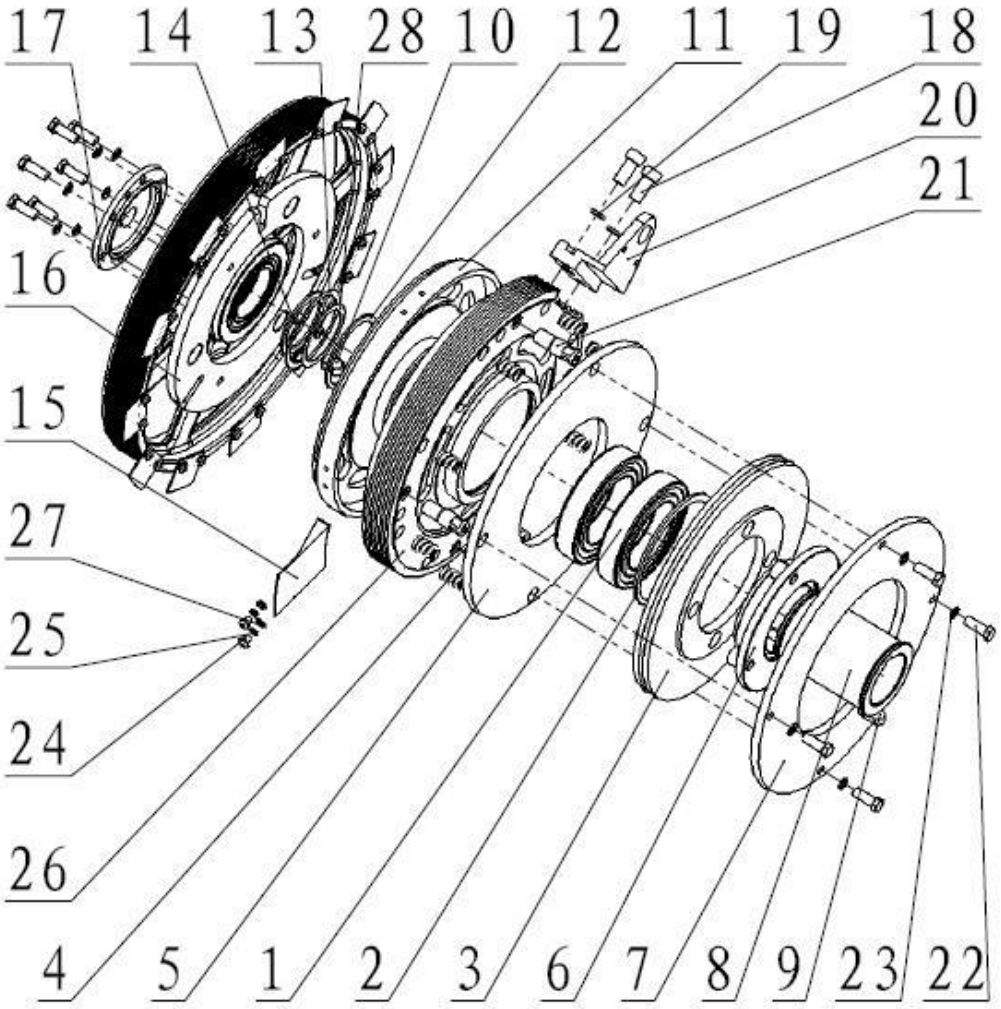
Number	Code	Name	Quantity
1	G5B.01	G5B large flange components	1
2	G5B.05	G5B main shaft components	1
3	G5B.03	G5B guide rail components	1
4	G5B.04	G5B upper pressing plate arm components	1
5	G360.01.01	G360 lower support arm components	1
6	G360.01.02	G360 sliding seat components	1

13.3 Outer components of G360 mixer



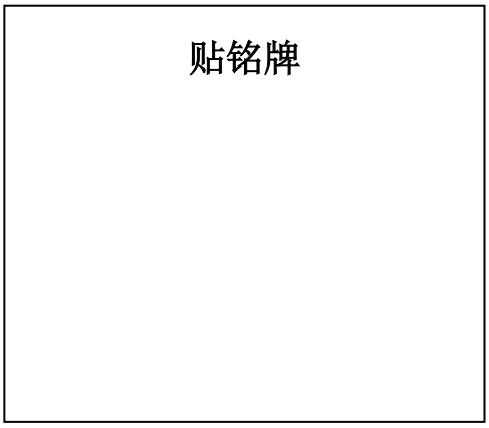
Number	Code	Name	Quantity
1	G360.02.01	G360 box body components	1
2		Tensioner pulley components	1
3	G360.02.09	G360 electrical mounting plate components	1
4	G360.02.08	G360 pressing reset optocoupler components	1
5		G5B motor components	1
6		Multi-wedge belt	1
7	G360.02.04	G360 door motion guide rail components	2
8	G360.02.05	G360 door motion support components	1
9	G360.02.02	G360 front top cover components	1
10	G360.02.06	G360 control panel components	1
11	G360.02.03	G360 door components	1
12	G360.02.07	G360 electrolock components	1

13.4 Electromagnetic clutch components

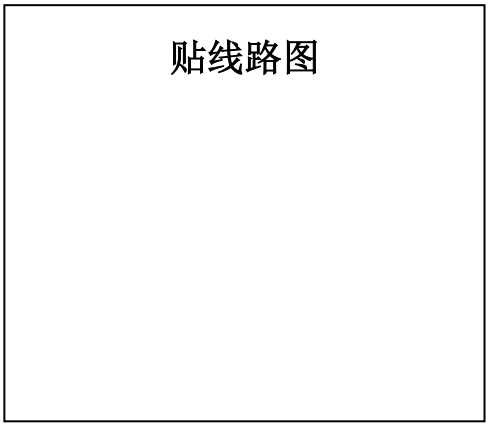


Number	Code	Name	Quantity
1	GB/T 276-94	Bearing 6012	2
2	GB 893.1-86	Circlip for hole 95	1
3	G5B.14.01	G5B assembly of brake disk	1
4	G5B.14-08	G5B pressing plate spring	8
5	G5B.14-06	G5B armature iron plate	1
6	G5B.14.04	G5B centering plate components	1
7	G5B.14-05	G5B pressing plate	1
8	G5B.14-02	G5B hollow axle	1
9	GB/T1096-1979	Flat key 10×22	1
10	GB/T 1096-1979	Flat key C10×16	1
11	G5B.14.03	G5B assembly of dynamic friction plate	1
12	GB 894.1-86	Circlip for shaft 60	1
13	G5B.14-03	G5B adjustable pad	1
14	G5B.14-10	G5B spacer bush of electromagnetic clutch	1
15	G5B.14-04	G5B reset baffle board	1
16	G5B.14.05	G5B moving plate components	1
17	G5B.14-01	G5B pressing axle flange	1
18	GB/T 70.1-2000	Inner hexagon screw M8×20	2
19	GB/T 93-1987	Elastic washer 8	2
20	G5B.14-07	G5B fixed block	1
21	G5B.14-09	G5B guide pillar	4
22	GB/T 5783-2000	Bolt M6×20	10
23	GB/T 93-1987	Elastic washer 6	10
24	GB/T 818-2000	Cross recessed pan head screw M4×6	2
25	GB/T93-1987	Elastcic washer 4	2
26	G5B.14.02	G5B electromagnetic plate assembly	1
27	GB/T848-2000	Small flat washer 4	2
28	SHH-VI.01-04	Bevel gear adjustable pad	1

14.Nameplate



15.Circuit diagram



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